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MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No. 1129 39, HD	Press / Mis.
Dated 3-5- 1872	

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department,
3rd May 1872.

No. 39. Read the following papers :—

From the Superintending Engineer, 2nd Division, to the Acting Chief Engineer for Irrigation, dated Camp at Salatur, 27th March 1872, No. 174.

I HAVE the honour to enclose papers detailed in the margin in supersession of part of work sanctioned for enlargement of Ryves' channel in G. O., No. 2,543, of 20th August 1867. This project allowed for a bridge at Murrevada *below* the junction of the Pullairu and Ryves' channel on a road which was through a rich portion of the delta.

1 Sketch.
2 Plans of Bridges.
2 Detailed Estimates.
2 Abstract of do. for Rupees 17,900.
2 Specification Reports.
1 Comparative Statement.

2. It is obvious that in this position the space enclosed between the two streams will be cut off from all direct communication with Murrevada and the country beyond it, and can only reach the country south and east by going round three miles to Weyoor, where there is a very old bridge.

3. The bridge provided in the estimate resembles one built at Pamarroo, which has failed of its purpose as suitable for navigation. I therefore requested the Range Officer to submit a design in lieu on the instructions given in your Circular No. 1 of 28th May 1869, and placing it *above* the junction with a second bridge.

4. The comparative statement shows that Rupees 14,190 are required in addition to the amount already sanctioned ; but I would point out that this sum, Rupees 3,710, was wholly insufficient, and that a bridge even at the originally proposed site would cost probably Rupees 14,000, so that the extra convenience will be provided at a price of only Rupees 3,900.

5. I trust my proposal will meet with your support and the early sanction of Government.

No. 52.

Note by the Acting Chief Engineer for Irrigation.

WITH the above letter the Superintending Engineer of the 2nd Division submits plans and estimates for bridges over the Pullairu* and Ryves'† canal above their junction in lieu of the bridge over the Pullairu channel below their junction, which was sanctioned in G. O., No. 2,543, dated 20th August 1867.

*Rupees 11,900.
† ,, 6,000.

Rupees 3,710.

2. It appears from the specification that " the object of the work is to provide a passage over Ryves' canal in the probable line of a future road branching off at the Hyderabad road at Tadenky to Gudivada," while the Superintending Engineer states that if the bridge be placed below the junction the space enclosed between the two streams will be cut off from all direct communication with Murrevada.

3. The Masulipatam road taps the country between the two streams, and judging by the sketch it would appear that nearly two miles of road would have to be provided from the Masulipatam road to connect the latter with the line between the bridges, and for this no provision is made in the estimate; the advantage obtained, or supposed to be obtained, by providing more direct communication

between Murrevada and the Masulipatam road would only be attained to the disadvantage of the villagers desiring to proceed from the lands east of Pullairu below the junction to Murrevada.

4. Under the bridge across Ryves' channel a dam 2 feet 9 inches high is provided, and no explanation whatever is afforded relative to this dam, the construction of which would alter the arrangements relative to Ryves' canal, approved and sanctioned in G. O., No. 2,543, of 20th August 1867.

5. The original estimate of Rupees 3,710 is stated to be insufficient, but no explanation is afforded in what respects it is so; the rates appear to be sufficient; the estimate provided for a bridge of four spans of 20 feet and a draw bridge of 16 feet; a similar bridge is said to have failed at Pamarroo, but it is not stated in what manner the bridge failed; it can only be presumed that the arrangements for raising the draw-bridge failed, and if so this was probably due to defective arrangements relative to the standards supporting the counterpoise weights.

6. For the purposes of navigation it would be more convenient to provide two bays of 50 feet spanned by plate girders with a towing-path carried along the eastern abutment than to build a bridge as provided in the original estimate; a roadway of 14 feet over the bridge would be sufficient.

7. With regard to the estimates submitted it may be remarked that while in one Rupees 300 is provided in a lump sum for raising approaches and metalling, the other provides 13½ Annas per square yard for metalling with 9 inches of stone under 6 inches of kunkar. A thickness of 9 inches is sufficient for the metalling, and this at the rate given in the original estimate would cost Rupees 720 instead of Rupees 1,612-8-0 as provided in the estimate for the two-arched bridge over the Pullairu.

8. Under the circumstances represented above, I cannot support the recommendation of the Superintending Engineer that bridges should be provided for the Pullairu and Ryves' channel with a view to a road being carried above instead of below the junction, and even could I support his recommendation as regards the bridges, I could not, in the absence of all explanation or even mention of the dam under the bridge over Ryves' canal, recommend the construction of the dam.

9. If the arrangements in connection with the raising and lowering of the draw-bridge at Pamarroo have failed, and it can be distinctly shown that the cause of failure cannot be remedied, I would suggest that a plate-girder bridge of two spans of 50 feet should be provided below the junction of Ryves' canal and the Pullairu, in lieu of the bridge provided in the estimate for the extension of irrigation in the Eastern Delta of the Kistna.

FORT ST. GEORGE, (Signed) R. F. OAKES, Captain, R.E.,
11*th April* 1872. *Acting Chief Engineer for Irrigation.*

No. 40. ORDER THEREON, 3rd May 1872, No. 1,129.

IRRIGATION, No. 4.

THE Superintending Engineer of the 2nd Division recommends the construction of two bridges over Ryves' Canal and the Pullairu in lieu of a single bridge over the latter. His proposition entails an expenditure of Rupees 14,190 in excess of the cost of the single bridge.

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Proceedings of the Madras Government, Public Works Department,
3rd May **1872.**

The object of the two bridges is explained to be to form a more direct communication from the lands lying between the two streams to the village of Marrevada than now exists; the saving in the distance is said to be three miles, but from the sketch the distance would appear to be only one mile, and by adopting the Superintending Engineer's proposition the advantages gained by the villages lying between the streams would be obtained at a corresponding disadvantage to the villages lying to the south of the Pullairu. The formation of the line proposed by the Superintending Engineer would entail the construction of two miles of road of which no notice is taken, and with one of the bridges he proposes to provide a dam across Ryves' canal, thus altering the arrangements sanctioned in connection with the Eastern Delta Project; he is altogether silent relative to the necessity for this dam. He states that the estimate for the bridge provided for the Pullairu channel is insufficient, but does not explain in what manner it is insufficient, or how the arrangements connected with the draw-bridge have interfered with or impeded navigation in a bridge similarly constructed elsewhere.

2. With the information now before them the Government are not prepared to accord sanction to the Superintending Engineer's proposal, and regret to observe the unsatisfactory manner in which the papers have been laid before them by the Superintending Engineer.

3. If the arrangements in connection with the draw-bridge cannot be modified so as to prevent all impediments to navigation, the Superintending Engineer will submit an estimate for a plate-girder bridge of two spans of 50 feet and will explain fully in what manner the bridge at Pamarroo interferes with navigation.

(True Extract.)

Captain, R.E.,
Acting Joint-Secretary to Government.

To the Superintending Engineer, 2nd Division.
,, Chief Engineer for Irrigation.

Exd. E. C. Shunker.

No. 52.

Letter No. 174 dated 27 March from the Superintending Engineer 2nd Division

With the above Letter the Superintending Engineer of the 2nd Division submits Plans and Estimates for Bridges over the ° Pullairu & × Ryves' Canal above their junction in lieu of the Bridge over the Pullairu channel below their junction which was sanctioned in G.O. No. 2543 dated 20 August 1867.

Encls. 11.

° Rs 11,900
× Rs 6,000

Rs 3,710

2. It appears from the specification that the object of the work is to provide a passage over Ryves' Canal in the probable line of a future Road branching off at the Hyderabad Road at Tadenky to Gudiwada while the Superintending Engineer states that if the Bridge be placed below the junction the space enclosed between the two Streams will be cut off from all direct communication with Munerada.

3. The Masulipatam Road taps the country between the two Streams and judging by the sketch it would appear that nearly 2 miles of Road would have

have to be provided from the Masulipatam Road to connect the latter with the line between the Bridges and for this no provision is made in the Estimate: the advantage obtained, or supposed to be obtained by providing more direct communication between Morrevada and the Masulipatam Road would only be attained to the disadvantage of the Villagers desiring to proceed from the lands East of Pullaern below the junction to Morrevada.

4. Under the Bridge across Ryves chan-nel a Dam 2' 9" high is provided & no explana-tion whatever is afforded relative to this Dam the construction of which would alter the arrangements relative to Ryves canal approved & sanctioned in G.O. No 2543 of 20th August 1867.

5. The original Estimate of Rs 3710 is stated to be insufficient, but no explanation is afforded in what respects it is so, the rates appear to be sufficient - the estimate provided for a Bridge of 4 Spans of 20 feet & a Draw Bridge of 16': a similar Bridge is said to have failed at Samarro, but it is not stated in what manner the

Bridge

Bridge failed, it can only be presumed that the arrangements for raising the Draw Bridge failed, & if so this was probably due to defective arrangements relative to the standards supporting the counterpoise weights.

6. For the purposes of Navigation it would be more convenient to provide 2 bays of 50' spanned by Plate Girders with a towing path carried along the eastern abutment than to build a Bridge as provided in the original Estimate. A Roadway of 14 feet over the Bridge would be sufficient.

7. With regard to the Estimates submitted it may be remarked that while in one Rs 300 is provided in a lump sum for raising approaches & metalling, the other provides 13½ annas per square yard for metalling with 9" of Stone under 6" of Kunkar. A thickness of 9" is sufficient for the metalling and this at the rate given in the original estimate would cost Rs 720 instead of 1612-8 as provided in the estimate for the 2 arched Bridge over the

the Pullaim.

8. Under the circumstances represented above I cannot support the recommendation of the Superintending Engineer that Bridges should be provided for the Pullaim & Hyres channel with a view to a Road being carried above instead of below the junction & even could I support his recommendation as regards the Bridges, I could not, in the absence of all explanation or even mention of the Dam under the Bridge over Hyres Canal recommend the construction of the Dam.

9. If the arrangements in connection with the raising and lowering of the Draw bridge at Pamaroo have failed and it can be distinctly shewn that the cause of failure cannot be remedied I would suggest that a Plate Girder Bridge of 2 Spans of 50 feet should be provided below the junction of Hyres Canal and the Pullaim in lieu of the Bridge provided

provided in the estimate for the extension of Irrigation in the Eastern Delta of the Kistna.

Fort St George
11th April 1872

[illegible] Captain RE
Ag Chief Engineer for Irrigation

To
The Secretary to Govt
P.W.D.

Public Works 1872 Department
From Pro. Ag. Sec. for May
No. 1798

The Ag Chief
Engr for Irrigation

To

The Secretary to
Govt. NWP

No. 52.

Dated 11th
Despd 12th April 72
Recd 12th

Encls 11

+3 Plans & 8 [illegible] to Chief [illegible] 9-12-72

Note on the Plans & estimates for Bridges over the Pullairn & Ryves Canal above their junction in lieu of the Bridge over the Pullairn channel below their junction which was sanctioned in G.O. No. 2543 of 20th Augt 67.

No. 1129 - 3d May 72

C/B 39

C 17 Aug/72 R. 23rd

3 plans & 8 enclosures sent 9/12/72

Pr. [illegible] 2122 / 72

MEMORANDUM.

REQUESTED for reference the under-mentioned papers

Irrigation Series No. III.

Enclos to 2d No. 176 - 27 March - 72

printed wh. [illegible] No. 1129 - 5th May - 72

OFFICE OF THE CHIEF ENGR. FOR IRRIGATION, P. W. Department, 7th 12. 1872

D. W. Hawkins

Head Clerk.

To

The Registrar of the P. W. Secrt.

Public Works Depart.t

No. 1129

Proceedings of the Madras Government

Read the following

1798

From The Ast Chief Engr. for Irrigation } H.E. No. 52 d/ 11th April (72)

A/A

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170 8

If the arrangements in connection with the Draw bridge can-not be modified so as to prevent all impediments to na-vigation the Supg: Engineer will submit an estimate for a plate girder Bridge of 2 spans of 50 feet and will explain fully in what manner the Bridge at Pam-marroo interferes with navigation.

R. T. D.

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6 Supg Engr 2 Dn
5 Chief Engr for Irrign

Y.
April 12th

Desp. 6/5/72

(5)

No 1798

Govt. of (1872) Madras.

PUBLIC WORKS.

To the Superintending Engr 2nd Division

Dated

Recd. Encl 11

3 Plans

G. O. 3rd May 1873, No. 1129.

Nos. 3940

Bridges over Ryves Canal & the Pullairu – Passing orders on the note by the Chief Engr for Irrign on the Plans & Estes for bridges over Ryves Canal & the Pullairu